

## MANAGING THE LIFETIME OF DISTRIBUTED RESOURCE DATA USING TEMPORAL SCOPES

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### ABSTRACT

10        A method and system for enabling a client to programmatically manage the  
lifetime of groups of distributed resources is herein provided. The method includes  
grouping client-specific resource data usage generated from blocks of instruction  
sequences bounded by scope instructions. A “begin scope” instruction invokes a method  
initiating the temporal scope. Client-specific resource data generated during execution of  
15        subsequent instructions is tracked by the distributed infrastructure. When an “end scope”  
instruction is received, the client-specific resource data tracked under the temporal scope  
is deleted from the distributed infrastructure. Client-specific resource data may be  
tracked under two types of temporal scopes: a transient and a persistent temporal scope.  
Data tracked under a transient scope does not survive beyond the lifetime of the client  
20        connection, whereas data tracked under a persistent scope may survive beyond the  
lifetime of the client connection. Lastly, temporal scopes may generally be nested.